

In the Claims:

Cancel Claims 26-31, without prejudice, as being drawn to a non-elected invention.

Amend Claims 1, 15 and 25 as follows:

Replacement Claims in Clean Form

92 1b 31 1. (Amended) A tool piece comprising:

- (a) a hardmetal body;
- (b) an additional body contiguously contacting the hardmetal body; and
- (c) a substantially discontinuous gradient-free boundary, formed at a temperature less than a temperature for forming a liquid phase and a superatmospheric pressure, between the hardmetal body and the additional body.

93 1b 34 15. (Amended) A tool piece, the tool piece comprising:

- (a) a hardmetal body including a hard particle component and a binder;
- (b) an additional body contiguously contacting the hardmetal body; and
- (c) a substantially discontinuous gradient-free boundary, formed at a temperature less than a temperature for forming a liquid phase and a superatmospheric pressure, between the hardmetal body and the additional body.

94 1b 35 25. A tool piece, the tool piece comprising:

- (a) a hardmetal body including a hard particle component and a binder;
- (b) an additional body contiguously contacting the hardmetal body;
- (c) a substantially discontinuous gradient-free boundary, formed at a temperature less than a temperature for forming a liquid phase and a superatmospheric pressure, between the hardmetal body and the additional body; and
- (d) a mating surface between the hardmetal body and the additional body.

Please add New Claims 42-63 as follow:

42. The tool piece according to Claim 25, further including a mating surface between the hardmetal body and the additional body.

43. The tool piece according to Claim 42, wherein the mating surface includes a male portion on one of the bodies and a corresponding female portion on the other of the bodies.

44. The tool piece according to Claim 43, wherein the mating surface is symmetrical.-

45. The tool piece according to Claim 44, wherein the mating surface is axially symmetrical.

46. The tool piece according to Claim 45, wherein the mating surface is dimpled.

47. The tool piece according to Claim 43, wherein the mating surface is asymmetrical.

48. The tool piece according to Claim 43, further including both micro and macro mating features.

49. The tool piece according to Claim 48, wherein the micro and macro mating features are represented as a periodic function subdivided into a finite number of continuous intervals within its period.

50. The tool piece according to Claim 48, wherein the micro and macro mating features include one or more of half circles, half ovals, half ellipses, triangles, sawtooth curves, and truncated versions of any of the preceding.

51. The tool piece according to Claim 48, wherein the micro feature and macro feature comprise a macro feature area to a perturbed macro feature area ratio comprising slightly greater than about 1:1 to about 1:50.

52. The tool piece according to Claim 51, wherein the micro feature and macro feature comprise a macro feature area to a perturbed macro feature area ratio comprising slightly greater than about 1:1 to about 1:10.

53. The tool piece according to Claim 48, wherein the micro mating feature comprises a size of about 100 μ m to about 1cm.

54. The tool piece according to Claim 25 wherein the hardmetal has a porosity rating of no higher than substantially A06, B00, C08 to better than substantially A02, B00 and C00.

55. The tool piece according to Claim 25, wherein the additional body comprises at least one of a metal body, a ceramic body, and an addition hardmetal body.

56. The tool piece according to Claim 25, wherein the additional body comprises at least one addition hardmetal body including a hard particle component and a binder.

57. The tool piece according to Claim 56, wherein the hard particle components are a carbide.

58. The tool piece according to Claim 57, wherein the carbide is a tungsten carbide.

59. The tool piece according to Claim 58, wherein the carbide grain size is about 0.2 μ m to about 40 μ m.